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EXAMINER

KIM, JUNG W

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,640

Applicant(s)

KUPFER, MICHAEL D.

Examiner

Jung W. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/02, 2/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-29 are pending.

Information Disclosure Statement

2. The items listed on the information disclosure statements filed February 3, 2005 and October 28, 2002 have been considered.

Claim Objections

3. Claims 7, 11 and 17 are objected to because of the following informalities: claim 7, on line 6, replace "said at least mandatory lock category" with –said at least one mandatory lock category--; claim 11, on lines 26-27, replace "is associated the mandatory Byte-Range lock" with –is associated with the mandatory Byte-Range lock--; claim 17, the sentence is not grammatical. Appropriate correction is required

Claim Rejections - 35 USC § 112

2. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. As per claims 1-29, the presence of the trademarks or trade names "Windows" and "UNIX" are not proper under 35 U.S.C. 112, second paragraph (see 37 CFR 2173.05(u)). If the trademark or trade name is used in a claim as a limitation to identify

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or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). The scope of the claim is uncertain since the trademark or trade name does not properly identify any particular material or product.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Borr USPN 6,516,351 (hereinafter Borr).

6. As per claim 1, Borr discloses a method of processing requests for performing operations on files which are capable of being stored in a UNIX file system (col. 1:37-40; 2:8-59), the method comprising:

- a. receiving a request to perform at least one operation on a file stored in the UNIX file system (3:53-4:18; 6:18-20);
- b. determining whether at least one mandatory lock is associated with the file (6:20-40)

- c. determining a mandatory lock category for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file (6:34-40);
- d. determining whether the at least one operation should be allowed for at least one mandatory lock (6:46-50; 7:12-14); and
- e. allowing the at least one operation when the determining determines that the at least one operation should be allowed (7:23-25).

7. As per claim 2, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises denying the at least one operation when the determining determines that the at least one operation should not be allowed (7:23-25).

8. As per claim 3, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the request is sent by a Windows client (1:45-50; 6:18-26).

9. As per claim 4, the rejection of claim 3 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the Windows client is a Common Internet File System client (6:18-26).

10. As per claim 5, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises: determining at least one

mandatory lock type for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file (4:35-64; 5:48-57; 6:34-40; 7:12-14).

11. As per claim 6, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises:

- f. determining at least one mandatory lock type for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file (6:34-40);
- g. wherein the determining of whether the at least one operation should be allowed for the at least one mandatory lock comprises determining whether the least one mandatory lock type is compatible with the at least one operation (4:35-64; 5:48-57; 6:46-50; 7:12-14).

12. As per claim 7, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the at least one mandatory lock category can be a Byte-Range lock or a Shared Resource lock (4:35-51; 5:48-61).

13. As per claim 8, the rejection of claim 7 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the type of the Byte-Range lock can be exclusive or shared (4:47-51).

14. As per claim 9, the rejection of claim 7 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the Shared Resource lock can have a deny mode associated with it; and wherein the deny mode can be defined with respect to reading or writing of the file (4:47-51).

15. As per claim 10, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the at least one operation can be a read, write, delete, rename, memory map or change size operation (6:34-45).

16. As per claim 11, Borr discloses a method of processing requests to perform operations on a file which is capable of being stored in a UNIX file system (col. 1:37-40; 2:8-59), the method comprising: receiving a request to perform an operation on a UNIX file which has a mandatory Byte-Range lock associated with it; determining whether said requested operation may affect a byte range of the UNIX file; the byte range representing a portion of the file which is associated with the mandatory Byte-Range lock; and determining whether the operation is compatible with the Byte-Range lock when the determining determines that the requested operation may affect the byte range (5:48-6:8).

17. As per claim 12, the rejection of claim 11 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises: determining whether the

request was made by the owner of the Byte-Range lock when the determining determines that the operation is not compatible with the Byte-Range (6:46-50; 7:12-14).

18. As per claim 13, the rejection of claim 11 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the mandatory Byte-Range lock can be an exclusive or shared lock (4:45-51).

19. As per claim 14, the rejection of claim 11 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the requested operation is initiated from a Windows environment (1:45-50; 6:18-26).

20. As per claim 15, Borr discloses a method of processing requests to perform operations on a file which is capable of being stored in a UNIX file system, the method comprising:

- h. receiving a request to perform an operation on a UNIX file which has a mandatory Shared Resource lock associated with it (4:38-44; 6:18-26); and
- i. determining whether a deny mode associated with the file covers an access mode associated with the request for accessing the file (6:46-51; 7:12-14).

21. As per claim 16, the rejection of claim 15 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition the method further comprises determining whether the

request was made by the owner of the mandatory Shared Resource lock when the determining determines that the deny mode associated with the file covers the access (6:46-50; 7:12-14).

22. As per claim 17, the rejection of claim 15 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition the deny and access modes can be defined with respect to at least one of the operations of reading from and writing to files (4:35-44).

23. As per claim 18, the rejection of claim 15 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition the requested operation is initiated from a Windows environment (1:45-50; 6:18-26).

24. As per claim 19, Borr discloses a method of processing a request to change the size of a file which is capable of being stored in a UNIX file system (col. 1:37-40; 2:8-59; a file write changes the size of the file); the method comprising:

- j. determining whether a mandatory Byte-Range lock or a mandatory Shared Resource lock is associated with the file (6:34-45);
- k. determining whether the Shared Resource lock includes a deny write operation when the determining determines that a mandatory Shared Resource lock is associated with the file (5:49-57); and

l. identifying a region of the file which may be affected by the request to change the size of the file when the determining determines that a mandatory Byte-Range lock has been associated with the file (5:58-61).

25. As per claim 20, the rejection of claim 19 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises:

m. determining whether the identified region intersects a locked region of the file; and allowing the request to change the file size when the determining determines that the identified region does not intersect the locked region of the file (5:58-61).

26. As per claim 21, the rejection of claim 19 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises determining whether the request was made by the owner of the mandatory Byte-Range lock or mandatory Shared Resource lock (6:46-50; 7:12-14).

27. As per claim 22, the rejection of claim 19 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the request to change the file size is allowed when the determining whether the Shared Resource lock does not include a deny write operation (7:23-25).

28. As per claim 23, Borr discloses a UNIX computing environment (col. 1:37-40; 2:8-59), comprising:

- n. a UNIX file system capable of storing one or more files therein (fig. 1, reference no. 110);
- o. wherein the UNIX computing environment is capable of enforcing mandatory locks for the one or more files in the UNIX file system (2:14-20); and
- p. wherein the mandatory locks comprise of at least two mandatory lock categories (4:35-51).

29. As per claim 24, the rejection of claim 23 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the computing environment further comprises:

- q. a distributed file system (fig. 1, reference nos. 112 and 130);
- r. a file system-independent portion of an operating system (fig. 1, reference no. 112; fig. 2, reference nos. 220 and 230); and
- s. wherein the mandatory locks are at least partially implemented in the distributed file system and the file system-independent portion of the operating system (reference nos. 241-244).

30. As per claim 25, the rejection of claim 24 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the at least two categories comprise Byte-Range locks and Shared Resource locks (fig. 2, reference nos. 241 and 242 and related text).

31. As per claim 26, the rejection of claim 23 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the mandatory locks can be enforced with respect to read, write, delete, rename, memory map, or change size operations (6:34-51).

32. As per claim 27, Borr discloses a computer readable media including computer program code for performing operations on files which are capable of being stored in a UNIX file system (figs. 1 and 2), the computer readable media comprising:

- t. computer program code for receiving a request to perform at least one operation on a file stored in the UNIX file system (6:18-20).
- u. computer program code for determining whether at least one mandatory lock is associated with the file (6:20-26);
- v. computer program code for determining a mandatory lock category for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file (6:34-45);
- w. computer program code for determining whether the at least one operation should be allowed for at least one mandatory lock (6:46-50; 7:12-14); and
- x. computer program code for allowing the at least one operation when the determining determines that the at least one operation should be allowed (7:23-25).

33. As per claim 28, the rejection of claim 27 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the computer readable media further comprise: computer

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program code for denying the at least one operation when the determining determines that the at least one operation should not be allowed (6:46-50; 7:12-14; 7:23-25).

34. As per claim 29, the rejection of claim 27 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the request is sent by a Windows client (1:45-50; 6:18-26).

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eckstein et al. Using Samba, discloses Samba, a suite of UNIX applications enabling Windows type mandatory locking mechanisms on a UNIX filesystem for the sharing of files between Window filesystems and UNIX filesystems. This disclosure appears to anticipate the independent claims of the instant application as well.

Borr, Andrea J. "SecureSafe: Safe UNIX/Windows File Sharing through Multiprotocol Locking" is a white paper outlining SecureShare which is appears to be the basis for the invention in Borr's patent 6,516,351.

See also US patent applications US 20030065796, US 20020019936, US 20020019874, US 20010039622, and US patent 6,457,130 all of which disclose file access controls using multiple access controls (CIFS and NFS), and all of which include Borr as a contributing inventor.

Montague et al. USPN 5,675,782 discloses controlling access on different operating systems, wherein a generic request is translated into a format appropriate to the operating controlling the file.

Eshel et al. USPN 5,535,375 discloses a file manager in a heterogeneous filesystem, wherein clients use filesharing protocols such as SMB and NFS.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jung W Kim
Examiner
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September 20, 2005


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